

Remarks

The applicant's invention is directed to noble gas – chlorine gas dispersions having a high efficacy against anthrax bacterium, Norwalk and Norwalk-like viruses, Legionellae, Severe Acute Respiratory Syndrome virus, black mold etc. The level of chlorine in the dispersion can be in a ratio of 20:1 (argon:chlorine) and is effective at from 1.0 to 3% chlorine. The dispersion is formed directly before use by passing each of the gases stored in separate high pressure containers into a mixer from which it is then dispensed.

The claims have been amended to recite the amount of chlorine gas in the mixture, i.e., 20:1 (argon is to chlorine see original claim 8, for example, for support) and that the mixture is formed directly before use; “argon and chlorine gases can be stored in separate commercial containers...when the agent is to be applied, the mixture can be generated by passing the gases from the high pressure containers...into a mixer...”

The Examiner has rejected claims 1-7 and 10-11 as being anticipated by Meyer. The Examiner recognized that “Meyer's argon – chlorine mixture is not stated to be for controlling anthrax bacterium, Norwalk virus, SARS virus, Legionellae and mold spores...”, it is his position however that the exact same gas mixture was disclosed by Meyer and that Meyer's gas mixture would necessarily have possessed the same properties as the applicant's gas mixture.

The Meyer gas mixture is a cleaning gas, more particularly a sparging gas for molten aluminum metal. The gas is fed into the molten aluminum so as to permeate the same and to collect impurities in the form of dross at the top of the trough. The gas is

described at column 4, line 43 et seq. as being an argon – chlorine mixture in the ratio of about 95 to 5%.

There is no teaching or suggestion in Meyer of the use of the gas mixture prepared just prior to use, with the concentration as recited of argon to chlorine of 20:1 or chlorine.1 – 3%, in the mixture.

It is the applicant's position that the claimed mixture is not anticipated and would further not be obvious, notwithstanding that it is related by composition or structure to a known composition as the compositions have to be compared as wholes, inclusive of their properties. The Meyer compositions cannot be regarded as useful for the sole use disclosed herein, the broad spectrum effectiveness against bacteria, viruses, mold, fungi, algae, spore forming microorganisms, termites, etc. as the sole use disclosed by Meyer is as a sparging gas for molten aluminum and would not provide the artisan with the necessary impetus to make the claimed compositions. The Meyer compositions were not known to possess the same property as relied upon herein for patentability. Most important, the compositions differ in that the instantly claimed compositions contain argon to chlorine in a ratio of 20:1 while the argon – chlorine mixtures of Meyer comprise 95 to 5% argon to chlorine. The Examiner recognizes the materiality make of the concentrations set forth in original claims 8 and 9 as theses claims were not rejected by the Examiner as being anticipated by Meyer. The limitation of claim 8 (ratio of 20:1, argon:chlorine) is now included in new claim 15 which replaces cancelled claim 1 which did not include this limitation.

The Examiner has rejected claims 1-7 and 9-11 under 35 U.S.C. 102(b) as being anticipated by Chemical Abstracts 117:95861. The Examiner states that he Chemical

Abstracts publication discloses argon – chlorine gas mixture wherein chlorine is present at 2%.

What the Chemical Abstract article discloses is in the “active oxidation of silicon carbide based ceramics in argon – 2% chlorine – oxygen gas mixtures at 1000 °C.” The O potential was controlled by “addns. of O₂ or H₂ at 1000°. Little attack was obsd. in the reducing environment composed of Ar-2% Cl₂-1% H₂ or the oxidizing environment composed of Ar-2% Cl₂-20% O₂, but all of the materials were subject to active corrosion at intermediate O potentials.” The Chemical Abstracts article would appear to suggest the combination of argon and chlorine together with either oxygen or hydrogen and particularly oxygen.

There is no suggestion in this publication (the full article does not appear to be available) of the suitability of argon – chlorine gas mixtures for even the limited purpose “active oxidation of silicon-based ceramics at 1000 °C”, let alone that such a gas mixture would have a high efficacy against bacteria, viruses, molds, spores, etc.

It is submitted that there is no teaching in this reference of the claimed compositions and that the rejection thereon should therefore be withdrawn.

The Examiner has rejected claim 8 as being obvious over Meyer relied on as disclosing an argon – chlorine gas mixture in the ratio of about 95 to 5%.

The argon – chlorine gas mixtures of the invention are to be considered non-obvious from an earlier known gas mixture having a very similar formulation if the properties of the latter formulation are unexpectedly different. The CCPA, the predecessor court to the CAFC, has stated “our position is that from the standpoint of patent law a compound and all of its properties are inseparable.” In re Papesch, 315 F.2d

381, 50 CCPA 1084 (1963). "A finding of unobviousness in consequence depends on comparing the old and new compounds as wholes, inclusive of their properties." In re Papesch, supra.

It is respectfully submitted that rejections based on 35 U.S.C. 102(b) and 35 U.S.C. 103 should be withdrawn and the claims as amended indicated as allowable.

Respectfully Submitted


Evelyn M. Sommer

Registration No. 19, 603

Attorney for Applicant

250 Park Avenue, Room 825

New York, NY 10022

Phone: 212-527-2657

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